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IS 7348-4 (1994): Dental vocabulary, Part 4: Dental equipment [MHD 8: Dentistry]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

दंत शब्दावली

भाग 4 दंत उपस्कर

(दूसरा पुनरीक्षण)

Indian Standard

DENTAL VOCABULARY

PART 4 DENTAL EQUIPMENT

(Second Revision)

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BUREAU OF INDIAN STANDARDS
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NATIONAL FOREWORD

This Indian Standard (Part 4) (Second Revision) which is identical with ISO 1942-4 : 1989 Dental Vocabulary — Part 4 : Dental equipment', issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Dentistry Sectional Committee (MHD 8) and approval of the Medical Equipment and Hospital Planning Division Council.

This standard was first published in 1974 as Part 1 and revised in 1982 to align it with the corresponding ISO 1942/I-1977 and ISO 1942/III-1977. Its second revision has been taken up to adopt the revised ISO 1942-4 : 1989 with a view to cover the latest terminology followed at the international level.

This standard under the general title 'Dental Vocabulary' is being published in five parts. Other parts in this series are as follows:

- Part 1 General and clinical terms
- Part 2 Dental materials
- Part 3 Dental instruments and accessories
- Part 5 Terms associated with testing

The text of ISO standard has been approved as suitable for publication as Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

Only the English language text of the International Standard (including alphabetical index) has been adopted in this Indian Standard.

An Amendment 1 of 1992 has been issued to ISO 1942-4 : 1989, adding in numerical sequence certain terms 'which have been included in continuation of the existing text of this standard (from 4.054 onwards).

Indian Standard

DENTAL VOCABULARY

PART 4 DENTAL EQUIPMENT

(Second Revision)

1 Scope

This part of ISO 1942 defines terms used in dentistry, particularly those relating to dental equipment. General and clinical terms, and terms, concerning dental materials, instruments and those terms associated with the testing of such products are incorporated in the four other parts of this International Standard.

This International Standard is intended to provide accepted definitions for a number of terms used in dentistry that could prove useful for the comprehension of documents aiming at the preparation and implementation of Standards, and to improve communication, through close cooperation with the Federation dentaire internationale, the World Health Organization and other national or international interested organizations.

2 Use of terms printed in italic typeface in definitions

A term printed in italic typeface in a definition, an example or a note has the meaning given to it in another entry of the Vocabulary, and may be found in any part of ISO 1942. The term is only printed in italic typeface the first time it occurs in each entry.

Other grammatical forms of the term, for example plurals of nouns and participles of verbs, are printed in the same way as the basic form.

4.001 dentistry¹⁾: Science and art of preventing, diagnosing and treating diseases and malformations of and injuries to the teeth, mouth and jaws, and of replacing lost teeth and associated tissues.

4.002 dentist²⁾: Person who after completing secondary education, or equivalent, follows a

prescribed course in *dentistry*, at a recognized (or accredited) university or dental school, at the successful completion of which, he (or she) is qualified to be legally licensed (or registered) to practise dentistry, by the responsible body in the country and is capable of undertaking the prevention, diagnosis and treatment of orodental conditions at the community and individual levels by exercising independent judgement without supervision.

4.003 dental office; dental surgery: Location where dental patients are received and treated by the *dentist*.

4.004 working space of the dentist: Space organized around the *dentist* and equipped for the positioning and treatment of the patient.

4.005 dental laboratory: Workshop where technical procedures prescribed by the *dentist*, and not requiring the presence of the patient, are carried out.

4.006 dental technician³⁾: Dental auxiliary competent to perform under the prescription of the *dentist*, the *dental laboratory* work.

4.007 orthodontics: Branch of *dentistry* concerned with the study of craniofacial growth and development, the treatment or prevention of malocclusion and other dentofacial anomalies.

4.008 periodontics; periodontia: That branch of *dentistry* concerned with the study, prevention and treatment of diseases affecting the *periodontium*.

4.009 restorative dentistry: Comprehensive term covering dental procedures in the dentulous or partially edentulous mouth; these may include operative, endodontic, periodontic, orthodontic and prosthetic procedures.

¹⁾The designation of "dentistry" may vary according to the usage of the term in the country concerned.

²⁾This definition is in accordance with the WHO, CIOMS definitions of a "physician" adopted by the World Health Assembly, Geneva, April 1972. The designation of dentist and dental schools may vary according to the usage of the terms in the country concerned.

³⁾The designation "dental technician" and his technical qualification may vary according to the countries concerned.

4.010 conservative dentistry: That part of *dentistry* which is concerned with the treatment and restoration of individual teeth.

4.011 ... : That part of *conservative dentistry* which is concerned with the functional restoration of the tooth.

4.012 paedodontics; pedodontics/USA/ : That branch of *dentistry* which is concerned with the diagnosis, treatment and prevention of oral anomalies, conditions and injuries in children.

4.013 endodontics: That branch of *dentistry* concerned with the diagnosis and treatment of the diseases of the *pulp* and the contiguous periapical tissues.

4.014 prosthodontics; prosthetic dentistry: That branch of *dentistry* which is concerned with the functional and aesthetic rehabilitation of the masticatory system by artificial replacement of missing teeth and associated tissues.

4.015 dental material: Substance or combination of substances specially prepared and/or presented for the use of authorized persons in the practice of *dentistry* and/or its associated procedures.

4.016 dental equipment: Furniture, machines, apparatus and accessories thereto, specially manufactured and/or presented for the use of authorized persons in the practice of *dentistry* and/or its associated procedures.

4.017 dental instruments: Small hand-tools specially designed for use in *dentistry*.

4.018 dental product: Any product specially manufactured, prepared and/or presented for the use of authorized persons in the practice of *dentistry* and/or its associated procedures.

4.019 dental device: Any article, instrument or appliance, specially manufactured and/or presented for the use of authorized persons in the practice of *dentistry* and/or its associated procedures, which is neither a *dental material*, nor an item of *dental equipment*, nor has been made specifically for an individual patient.

4.020 dental pharmacological materials: Those *dental materials* which carry out their intended function by actively affecting, either locally or systemically, the normal physiological behaviour of the tissues or any pathological changes taking place in them, or by modifying the normal metabolism of cells or of invading micro-organisms. (Such pharmacological action may also be a secondary function of certain other dental materials.)

4.021 dental operator stool: Movable seat which satisfies the general requirements relevant to the performance of *dentistry* by a seated operator.

4.022 dental (patient) chair: Item of *dental equipment*, provided with a range of movements, which is designed to support and position the patient for treatment.

4.023 section of the dental patient's chair: Part of the *dental chair* between one end and one joint or between two joints, made in order to support corresponding part(s) of the patient's body.

4.024 compensatory horizontal travel: System of anteroposterior movement of the *dental chair* designed to keep the mouth of the patient approximately in the same vertical line, while varying backrest angulations.

4.025 unit, dental: Item of *dental equipment* consisting of an assembly of interconnected sub-units of dental equipment and instruments providing a functional unit for dental use.

4.026 dental cart: Mobile *dental unit* usually presented as a small wheeled pedestal table.

4.027 dental operating luminaire: That part of a *dental operating light* which comprises the light source, reflector, refractor and focusing mechanism if included, and other parts enclosing the light source.

4.028 dental operating light Item of *dental equipment* consisting of a *dental operating luminaire* and its supporting, adjusting, protecting and connecting facilities.

4.029 miniprojector: Movable illumination device of small dimensions, easily adjustable, incorporating a lens system in order to produce a concentrated beam of light.

4.030 endobuccal (intraoral) lamp: Light source of very small dimensions, designed to be introduced into the oral cavity.

4.031 head lamp: Illumination device of convenient dimensions designed to be worn on the user's forehead thus enabling the emerging beam of light to follow the movements of the head.

4.032 fibre optic: Light-conducting system using the optic properties of fibres with constant diameter.

4.033 fibre optic device: Device designed to guide light, with little loss of intensity from a given source through a flexible bundle of optic fibres (glass or quartz) which enables

the emerging beam of light to be directed to the desired area.

4.034 liquid light-guide: Tube containing a liquid which transmits light in a manner somewhat similar to that in a *fibre optic device*.

4.035 luminous flux: The total amount of radiant flux by evaluating the radiation according to its action upon a selective receptor, the spectral sensitivity of which is defined by the standard spectral luminous efficiencies.¹⁾

Unit: lumen (lm).

NOTE – Quantity of light expressed in lumens, and directed in a given direction.

4.036 lumen SI unit of luminous flux: luminous flux emitted within unit solid angle (one steradian) by a point source having a uniform luminous intensity of 1 candela.¹⁾

4.037 luminous intensity (of a source in a given direction): Quotient of luminous flux leaving the source, propagated in an element of solid angle containing the given direction, by the element of solid angle.¹⁾

Unit: Candela (cd).

NOTE – For example, for the same quantity of light emitted, the apparent intensity will be the greater, the more the solid angle of emission is reduced.

4.038 candela: The candela is the luminous intensity, in the perpendicular direction, of a surface of 1/600 000 square metre of a black body at the temperature of freezing platinum under a pressure of 101 325 newtons per square metre.²⁾

Symbol: cd = 1 lm·sr⁻¹

4.039 luminance: Quotient of luminous intensity by area. The SI unit of luminance is the candela per square metre (cd/m²).

4.040 illuminance: illumination (at a point of a surface): Quotient of a luminous flux incident on an element of the surface containing the point by the area of that element.¹⁾

Unit: lux (lx).

4.041 lux: lumen per square metre: SI unit of illuminance: illuminance produced by a luminous flux of 1 lumen uniformly distributed over a surface of area 1 square metre.¹⁾

Symbol: lx, lm·m⁻².

EXAMPLES

cloudless sky in the shade: approximately 15 000 lux

¹⁾Fourth issue of CIE Vocabulary.

²⁾Term and definition resulting from the 13th "conference generale des Poids et Mesures" (1967).

average sunlight: approximately 100 000 lux.

candle at 1 metre: approximately 1 lux

4.042 lighting

1) The action or way of producing providing or distributing light

2) Application of light to a scene, objects or their surroundings so that they may be seen.

NOTE – This term is also used colloquially with the meaning "lighting system" or "lighting installation".¹⁾

4.043 illumination: Visible radiation applied to a scene or object.

4.044 high-intensity diffused lighting: Provision of increased illumination relative to surroundings, to a zone or working space intended to minimize operator eye fatigue.

4.045 spot lighting: Application of a focused beam of light with minimum diffusion to a limited area or object.

4.046 metameric colour stimuli; metamers: Spectrally different radiations that produce the same colour under the same viewing conditions.

NOTES

1 The corresponding property is called "metamerism"

2 In German, colours ("Farbvalenzen") relating to spectrally identical colour stimuli are described as "unbedingt-gleich".¹⁾

3 Two sources may have the same apparent colour, but totally different spectral distributions; consequently, two colours examined alternately by reflection under one or the other of these sources may appear to be either identical or different in one case or the other.

4.047 colour temperature of a source: Temperature of the full radiator which emits radiation of the same chromaticity as the radiator considered.

Unit: kelvin K.¹⁾

NOTE – The corresponding relative spectral distributions may not be similar, in which event there will be a metameric match.³⁾ In this case, colour sampling is not possible.

EXAMPLES

incandescent lamp: approximately 2 500 K

sun: approximately 4 250 K

blue sky 3/5 clouded, Northern daylight: approximately 6 500 K

4.048 full radiator; Planckian radiator; black body/UK/; blackbody/USA/: Thermal

³⁾Absolute temperature (+ 273°C).

radiator which absorbs completely all incident radiation, whatever the wavelength, the direction of incidence or the polarization. This radiator has, for any wavelength, the maximum spectral concentration of radiant exitance at a given temperature.¹⁾

NOTE – It is the thermal radiator which, at any given temperature, emits more energy than any other radiators whatever the wavelength.

4.049 colorimetric shift: Change in chromaticity and luminance factor of an object colour due to change of the illuminant.²⁾

4.050 dental X-ray apparatus: Any apparatus and its attachments specially designed and/or presented for the production and application of X-rays in dentistry.

4.051 dental sterilizer: Apparatus specially designed and/or presented for the sterilization of dental instruments, devices and/or materials.

4.052 combination syringe: Hand-held device designed to deliver either compressed air, or-water or an air water spray to the site

required by the operator. The fluids can be heated.

4.053 amalgam trap: Device designed to prevent waste amalgam entering main drainage system.

4.054 (dental amalgam) alloy dispenser: Device specially designed to deliver measured quantities of dental amalgam alloy.

4.055 (dental) mercury dispenser: Device specially designed to deliver measured quantities of dental mercury.

4.056 dental amalgamator: Mechanical device for mixing dental amalgam alloy and mercury.

4.057 X-ray film dispenser: Container specially designed to store and dispense individual intraoral X-ray films. It protects film from contamination and usually from radiation.

4.058 impression tray: Device specially designed to contain, support and control the material(s) used for making impressions.

¹⁾Fourth issue of CIE Vocabulary.

²⁾Absolute temperature (+ 273°C).

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